

CLAIMS

1- A process of immunity to variations in resources of a portable object comprising a processor block, at least two communication and/or supply interfaces with and/or
5 without contact, the aforementioned process comprising at least:

- a control step of a state of availability of at least one resource on one of the interfaces and a step of selection of the resource(s),

10 characterised in that the process comprises the following steps according to which:

- an interrupt signal is generated to the processor block on a variation in availability of the resource(s),

15 in that the processor processes the interruption signal in order to allow selection of the resources.

2- A process according to claim 1, characterised in that an interruption signal is generated by a resource controller according to transitions of statuses of availability of at least one resource.

20 3- A process according to the claim 1 or 2, characterised in that the interruption signal is generated for the following transitions:

- Transition (13.17; 14.18) from a state of low power supply via the contact interface to a state of power supply
25 via the contactless interface (3), the voltage available via the latter interface (3) being greater than a threshold voltage;

- Transition (17.13; 18.14) from a state of supply via the contactless interface (3) to a status of cessation
30 of this supply, the voltage received by the contactless interface (3) being lower than a threshold voltage;

- Transition (15.16) from a state of supply via the contactless interface (3) to a state of supply via the contact interface (7);

- Transition (16.16) or reset sequence commanded by the contact interface (7), with supply via the contact interface 7.

4- A process according to one of the claims 1 to 3, characterised in that this process comprises at least one step of immediate warning for fully simultaneous management of power and/or clock resources (VCC; VDD; CLK).

5- A process according to the claim 4, characterised in that the immediate warning step makes provision for a diversion phase of the resources in order for the latter to be tapped at least in part via the contactless interface (3).

6- A process according to one of the claims 1 to 5, characterised in that this process makes provision for at least one logical phase forming a sleep controller so that the chip (6) complies with constraints of lower consumption during sleep states (13; 14; 17; 18).

7- A device for immunity to variations in resources of a portable object comprising a processor block, at least two communication and/or supply contact and/or contactless interfaces, with the said device comprising at least means of control of a status of availability of at least one resource on one of the interfaces and selection of resource(s),

characterised in that this device is capable of generating an interruption signal to the processor block during a variation in availability of resource(s) and in that this processor is capable of processing the interruption in order to allow selection of the resources.

8- A device according to the claim 7, characterised in that it comprises means (103) of immunity including: a diode (20) for limitation of power consumption from the contactless interface (3), a logical gate (21) guaranteeing
5 switching between two modes of power supply via the contact interface (7) or via the contactless interface (3).

9 - A device according to the claim 7 or 8, characterised in that the means (103) of immunity comprise: at least one wired mechanism (M1) capable of detecting the
10 presence of a power supply resource derived from the contact interface (7) and derived from the contactless interface (3); this mechanism (M1) possessing at least two registers (R1; R2) with the assistance of which the means (103) of immunity indicate the status (Active/Stop) of the
15 supply resources (VCC; VDD); so that any modification in these registers (R1 and/or R2) results in an alert signal, for example in the form of interruption; wiring connecting the mechanism (M1) to a processing block (108), so that the means (103) of immunity, after having consulted the
20 registers (R1; R2) then select the power source used.

10 - A device according to the claim 9, characterised in that the means (103) of immunity comprise a wired mechanism (M2) provided in the chip (6) guaranteeing that the selected source supplies the chip (6) with electricity.

25 11 - A device according to one of the claims 7 to 10, characterised in that it comprises means (102) of immediate warning, for fully simultaneous management of power and/or clock resources (VCC; VDD; CLK).

12 - A device according to the claim 11,
30 characterised in that the means (102) of immediate warning make provision for at least one functional block (103; 107) allowing deviation of resources so that the latter are at least partially tapped via the contactless interface (3).

13 - A device according to one of the claims 7 to 12,
characterised in that: this functional block (107)
comprises wiring or similar for supply of the chip (6) with
appropriate voltage and power, for information of this chip
5 (6) of the appearance and/or disappearance of supply
resources derived from the contact interface (7) and/or
contactless interface (3).